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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/808,928	03/25/2004	Bernhard Reichel	P04,0062	6891

7590 05/09/2005

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EXAMINER

HAM, SEUNGSOOK

ART UNIT	PAPER NUMBER
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2817

DATE MAILED: 05/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/808,928

Applicant(s)

REICHEL ET AL.

Examiner

Seungsook Ham

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 June 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) 9-12 and 14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3/25/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-8 and 13, drawn to a ceramic filter, classified in class 333, subclass 206.
- II. Claims 9-12 and 14, drawn to a method of manufacturing a ceramic filter, classified in class 264, subclass 609.

The inventions are distinct, each from the other because of the following reasons:

Inventions II and I are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case, a conductive layer can be placed in a recess using an adhesive material instead of metalizing the entire end surface of the body and removing the exterior metallization..

Because these inventions are distinct for the reasons given above, and have acquired a separate status in the art as shown by their different classification, and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.

During a telephone conversation with Mr. Brett A. Valiquet on May 4, 2005 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-8 and 13. Affirmation of this election must be made by applicant in replying to

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this Office action. Claims 9-12 and 14 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1, 3-8 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Atokawa et al. (US Pat. App. Pub 2004/0239445).

Atokawa et al. (figs. 1A-2) discloses a ceramic filter comprising: a ceramic body 1; a plurality of metallized bores 2a-2c, 4a-4d in the ceramic body; a closed exterior metallization 10 arranged on exterior surfaces of the body except one end face; a plurality of metallic structures being formed as metallized recesses 11-13 in the one end face; at least two metallized bores for two sub-filters of a duplexer; and at least one further metallic structure 6 for decoupling the two sub-filters of the duplexer.

The subject matter of claims 5–7 is also disclosed by Atokawa et al. (paragraph [0051]).

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Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 5-7 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Hara et al. (JP '616).

Hara et al. (fig. 1(c)) discloses a ceramic/dielectric filter comprising: a ceramic body 1; a plurality of metallized bores 2a in the ceramic body; a closed exterior metallization 5 arranged on exterior surfaces of the body except one end face; a plurality of metallic structures being formed as metallized recesses 6 in the one end face (see also abstract).

The subject matter of claims 5-7 is also disclosed by Hara et al. (paragraph [0009]).

Claims 1, 2, 3, 7 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Vangala et al. (JP '866).

Vangala et al. (figs. 1-3) discloses a ceramic filter comprising: a ceramic body 12; a plurality of metallized bores 28-46 in the ceramic body; a closed exterior metallization 25 arranged on exterior surfaces of the body except one end face; a plurality of metallic structures being formed as metallized recesses 94, 96, 98, 110-124 in the one end face; and at least two metallized bores for two sub-filters 28-38, 40-46 of a duplexer at least three metallic structures are formed as coupling structures (col. 5, lines 6-32).

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Regarding claim 2, at least one metallic structure 94 is connected to a contact surface 100 on an exterior face representing a bottom side, the contact surface being electrically insulated with respect to the exterior metallization 12.

The subject matter of claim 7 is inherent from the device of Vangala et al. (see col. 5, lines 6-32).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vangala et al. (JP '866).

Vangala et al. teaches that the metallized recesses provides a capacitive coupling (col. 3, lines 6-32). The specific size of the depth is considered as an obvious design modification to obtain a desired filter response.

Claims 4 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vangala et al. (JP '866) as applied to claim 1 above, and further in view of Kitajima et al. (US '279).

Vangala et al. does not show providing a decoupling metallic structure. However, providing a decoupling hole/metallic structure is well known in the art.

Kitajima et al. (fig. 7A) discloses a duplexer having a decoupling metallic structure (the conductive material coupled to the metallized bore 81) coupled to a

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metallized bore $\theta 1$ for decoupling (i.e., trap resonator or transmission pole) the two sub-filters of the duplexer.

It would have been obvious to one of ordinary skill in the art to provide a decoupling structure in the device of Vangala et al. to provide a transmission pole between two sub-filters (col. 3, lines 30-41).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Tada et al. (US '707) and Tsujiguchi et al. (US '420) discloses a dielectric filter having a decoupling hole;

Miyamoto discloses a dielectric filter having different cross-sectional through holes;

Tada et al. (US '250) discloses a dielectric filter having a chamfer edge on a dielectric block; and

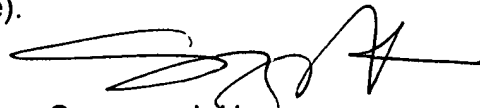
Sugano et al. (JP '002) discloses a metallized recessed coupling structure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Seungsook Ham whose telephone number is (571) 272-2405. The examiner can normally be reached on Monday-Thursday, 8:00AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pascal can be reached on (571)-272-1769. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Seungsook Ham
Primary Examiner
Art Unit 2817

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